LATEST IEPA PERMIT

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Illinois Environmental Protection Agency 2200 Churchill Road Springfield, IL 62706

217/782-6762

Refer to: 0438030001 -- DuPage County
Lisle Twp./Greene Valley Landfill
Permit No. 1974-30-DE and OP
Supplemental Permit No. 1988-172-SP
Log No. 1988-172
Permit File

July 14,1988

Waste Management of Illinois, Inc.
Attention: Francis R. Lewis
P.O. Box 563
Palos Heights, Illinois 60463

DuPage County Forest Preserve District
P.O. Box 2339
Glen Ellyn, Illinois 60137

Gentlemen:

Permit is hereby granted to Waste Management of Illinois Inc. to develop a solid waste disposal site consisting of 200 acres in the S 1/2 of Section 34, T38N, R10 east of the 3rd P.M. DuPage County to handle municipal refuse and septic tank pumpings all in accordance with the application and plans prepared by Geotech, Inc. and Waste Management of Illinois, Inc. Said application consisting of 10 pages of plans dated April 11, 1974 and received by IEPA on April 12, 1974 and 3 pages of revisions dated April 30, 1974 and received by IEPA May 2, 1974. (1974-30-DE); Permit is hereby granted to Waste Management of Illinois Inc. to operate a solid waste disposal site as described above, to handle municipal refuse and 2,000 gallons of septic tank pumpings per day all in accorance with the application and plans prepared by Geotech, Inc. and Waste Management of Illinois, Inc. Said application consisting of 10 pages dated April 11, 1974 and received by IEPA on April 12, 1974and 3 pages of revisions dated April 30, 1974 all received by IEPA May 2, 1974. (1974-30-OP); plans consisting of 2 pages dated September 2, 1976 and received by IEPA on September 6, 1976 (Supplemental Permit No. 1976-534-SP); plans consisting of 2 pages dated June 6, 1978 and received by IEPA June 17, 1978 (Supplemental Permit No. 1978-1756-EX); plans consisting of 1 page dated June 16, 1978 and received by IEPA June 19, 1978 (Supplemental Permit 1978-1762-SP); plans consisting of 4 pages dated June 2, 1980 and one plan sheet were received by IEPA June 4, 1980, additional information consisting of 3 pages and notification letters dated June 5, 1980 were received by IEPA June 9, 1980 (Supplemental Permit 1980-2108-SP); plans consisting of 2 pages of narrative dated March 24, 1981 and a report with sketches from testing Service Corporation dated January 20, 1981 all received by IEPA April 9, 1981 (Supplemental Permit 1981-58-SP); plans consisting of two pages and revised development plan sheet #5 (of 12) dated March 7, 1983 and received by IEPA March 10, 1983 (Supplemental Permit 1983-73-SP); plans consisting of a 2 page letter dated June 3, 1983 and one plan sheet dated January 31, 1983 all received by IEPA June 6, 1983 and a 2 page letter dated July 1, 1983

received by IEPA on July 5, 1983 (Supplemental Permit 1983-100-SP); plans consisting of a cover letter and report of 247 pages dated November 23, 1983 and 14 plan sheets dated April 23, 1982 all received by IEPA December 6, 1983 (Supplemental Permit 1984-13-SP); plans consisting of one page narrative dated June 19, 1984 and 3 revised plan sheets dated June 19, 1984, all received by IEPA June 25, 1984 (Supplemental Permit 1984-760-SP); plans consisting of a 3 page letter dated February 26, 1987, Volume I and II reports by Hydro-Search Inc. dated June 19, 1986 and revised October 31,1986 and 6 plan sheets all received by IEPA March 11, 1987. Additional information dated March 18, 1987, March 27, 1987, April 15, 1987 and May 7, 1987 were received by IEPA on March 23, 1987, March 30, 1987, April 16, 1987 and May 11, 1987 respectively (Supplemental Permit 1987-057-OP); plans consisting of 3 page of narrative dated April 23, 1987 and 3 plan sheets revised in March, 1987 all received by IEPA on April 27, 1987 (Supplemental Permit 1987-103-SP); plans consisting of one page narrative dated June 1, 1987 and 3 technical reports for a total of 16 pages all received by IEPA on June 4, 1987 (Supplemental Permit 1987-133-SP-EX); plans consisting of 2 pages of narrative dated October 15, 1987, a supporting letter dated September 1, 1987 and plan sheet No. 6 (of 13) revised October 1987, all received by IEPA October 15, 1987 (Supplemental Permit 1987-206-SP); plans consisting of 3 pages of narrative dated November 13, 1987, a certification from Testing Service Corp. dated October 30, 1987 with 63 pages of soil testing reports and a revised closure/post-closure care plan dated July, 1987 (Supplemental Permit 1987-260-SP).

This supplemental permit is hereby granted to the DuPage County Forest Preserve District (owner) and Waste Management of Illinois, Inc. (operator) to modify this site by the construction of:

A. A public small vehicle unloading station (citizens box).

B. A temporary exit driveway for dirt hauling trucks.

All in accordance with the plans prepared by Waste Management of Illinois, Inc. Final plans, specifications, application and supporting documents as submitted and approved shall constitute part of this permit and are identified on the records of the Illinois Environmental Protection Agency, Division of Land Pollution Control by the permit number(s) and log number designated in the heading above.

The permit conditions listed below include a compilation of all permit conditions which remain in effect from the previous permits for this site. Note: Unmodified conditions from previous permits are referenced by the first permit in which they were included, their condition number in that permit and the date that permit was issued; new or modified conditions are not so referenced.

The permit is issued subject to the standard conditions attached hereto and incorporated herein by reference, and further subject to the following special conditions:

1. This Agency shall be kept informed of the status of the site development, so that inspections of subsurface site features can be scheduled, e.g. leachate collection system. (1974-30-DE, Condition No. 3, 5/7/74)

2. The leachate level at all leachate collection risers shall be maintained at an elevation which is five (5) feet or less above the landfill invert. (1987-206-SP, Condition No 2, 12/10/87)

3. Haul roads at the site may be constructed using debris comprised of cinders, sand, wood, brickbats, broken concrete, broken asphalt paving, plaster and all usual road building materials, excluding all putrescible material or rubbish. When use of the temporary haul road is discontinued, the material from which the road is constructed shall either be removed and deposited at the active fill face or the road shall be covered with two feet of final cover. (1976-534-SP, 9/21/76)

4. Installation of internal leachate collection "flaring points" is approved. As work progresses, an internal plumbing system of deep set flaring points shall be installed on 600 foot centers to be used to monitor leachate levels and as leachate pumping points should pumping and disposal ever become necessary. (1978-1762-SP, Condition No. 1, 9/18/78)

   The two permits cited by WMI in their modification request (1984-12-SP and 1987-103-SP) do not appear to meet the requirements of this condition, so the condition will therefore be retained. In order for this condition to be deleted, WMI would have to demonstrate that the leachate collection system which has been installed meets or exceeds the capability of the flaring points for monitoring or removal of leachate.

5. In-place soils may be used as a liner for less than one (1) acre in the western portion of Area #2. (1981-58-SP, 7/1/81)

6. The leachate collection system may be modified by the installation of a leachate collection sump at the location identified as "Benchmark 3" on the revised site development plan. The collection sump shall function as a connection point between the existing and newly installed leachate collection system. It shall also provide access for the clean out of both leachate collection lines and any significant amount of leachate that may accumulate. (1983-73-SP, 5/24/83)

7. The January 31, 1983 Interim Soil Erosion and Sedimentation Control Plan is approved. The permit allows for an interim sedimentation pond to be located on the southwest corner of this site. While the other proposed sedimentation pond appears to be at an acceptable location, the Agency cannot address this proposal as a modification to site operations since it is located outside of the legal boundaries encompassed under Permit No. 1974-30-OP.

8. Development of a 34.740 acre expansion and a single hill concept is approved. (1984-13-SP, Condition No. 1, 2/15/84)

9. Condition 10 of Permit No. 1987-206-SP, issued on December 10, 1987, which required that prior to issuance of an operating permit for the 34.70 acre expansion, a registered Professional Engineer certify that the first 175 foot wide by 800 foot long area has:

   a. at least ten (10) feet of clay with a maximum hydraulic conductivity of 1×10^{-7} cm/sec present in the bottom and sidewalls of the area. All probe logs for the subject area shall accompany this certification;

   b. any permeable layers encountered shall be over-excavated and sealed with at least ten feet of clay with maximum hydraulic conductivity of 1×10^{-7} cm/sec and a minimum of 95% ASTM D698 density;

   c. all probe holes shall be sealed with a clay auger cuttings-bentonite mixture;

   d. a report of all dimensions, hydraulic conductivities and densities of the current progression of the perimeter berm submitted to the Agency;

   e. certification accompanied by 1) a plan sheet showing the location and dimensions of the area and the locations of the soil test sample locations and 2) test results of a, b and d above.

   The terms of this condition have been fulfilled by the application for permit No. 1987-260-SP.

10. Refuse may be placed at the top of the working face and pushed downhill only when entering or leaving a new working face area, during placement of the initial or last refuse lift of a working area, or if severe weather conditions have limited the access to routine working face areas. When depositing waste at the top of the slope, additional passes of the compactor over the spread refuse shall be made to achieve the same compaction as would result from pushing uphill. (1987-206-SP, Condition No. 11, 12/10/87)

11. Berms and liners shall at all times be maintained 2 to 3 feet higher than the refuse level. (1984-13-SP, Condition No. 4, 2/15/84)

12. Prior to the placement of refuse in each new subarea, the DLPC Regional Office in Maywood, telephone 312/345-9780, shall be contacted in order to schedule an inspection of the subsurface features of the site as built, (e.g. leachate lines, appurtenances, clay barriers, berms, gas vents, etc.), and that each new subarea shall meet the requirements of Condition No. 9, (1984-13-SP, Condition No. 2, 2/15/84). All subsurface installations shall be inspected by this Agency and the permittee shall notify this Agency at least ten (10) working days prior to the required inspection. The Environmental Control Manager of the DuPage County Department of Public Works shall also be contacted. (1987-206-SP, Condition No. 13, 12/10/87)

13. No special wastes shall be received at the site for disposal unless a supplemental permit has been received from the Agency for each special waste. (1984-13-SP, Condition No. 8, 2/15/84)

14. In case of conflict between the application plans and documents and these special conditions, the special conditions shall govern. (1984-13-SP, Condition No. 12, 2/15/84)

15. Special wastes received at the site shall be transported to the facility utilizing the Agency's supplemental permit system and manifest system. (1984-13-SP, Condition No. 15, 2/15/84)

16. Condition No. 16 of Permit 1984-13-SP, issued on February 15, 1984, which required submittal of a leachate management program (including a description of how the leachate will be managed after landfilling activities cease) prior to issuance of an operating permit, has been fulfilled by the application for this permit, Permit No. 1987-260-SP.

17. The June 21, 1984 modification to the configuration of the leachate collection system is approved. (1984-760-SP, 9/18/84)

18. Your groundwater monitoring program is approved in accordance with Attachment A, and is subject to the conditions contained therein. This groundwater monitoring program supersedes and replaces all past monitoring programs. All required groundwater monitoring devices shall be installed so that groundwater samples may be taken during the months of October or November 1987 and the results submitted to the Agency by January 15, 1988.

    Construction of groundwater monitoring wells must conform to the special conditions below and the "Diagram of Monitoring Well Construction", attached hereto and incorporated herein by reference.

a. Within sixty days of installation of any monitoring point, boring logs and as-built diagrams shall be submitted to the Agency. As built diagrams, for each monitoring point installed, shall include horizontal location to the nearest 0.1 foot (grid coordinates), the type and inner diameter of casing material used, type and length of screen packing material used, type and length of seals used, type of backfill used, finishing details, groundwater levels, elevation of stick-up (top of casing), ground surface elevation, bottom elevation, interval screened, screen slot size and depth. All elevations or levels are to be measured and reported to the nearest 0.01 foot MSL. The grid locations of the two surface monitoring points (S101 and S301) are also to be reported. (This information dated January 18, 1988 was received by IEPA January 20, 1988.)

b. A revised well location plan is to be submitted with the as-built diagrams which shows the location and Agency designation of all monitoring points, including surface monitoring points. (This information dated January 21, 1988 was received by IEPA January 22, 1988.)

c. If replacement of any monitor point becomes necessary, the Agency shall assign a new designation to the point. Agency designations are not transferable.

d. All borings/wells not used as monitoring points shall be backfilled in accordance with the attached IEPA monitor well plugging procedures.

e. For new or replacement wells, the annular space (the space between the bore hole and the well casing) for a distance of two to three feet above the top of the screen must be sealed with a bentonite or an expanding cement grout (as above), to minimize contamination of samples and the groundwater. Above this, an expanding concrete grout plug shall be placed to a point above the ground surface, and be sloped away from the well casing so that surface water will be diverted away from the well casing and bore hole.

f. A padlocked protective cover must be installed over the portion of the well casing extending above the ground surface to protect against damage to, and tampering with, the well.

g. Wells shall be easily visible and identified with the Agency monitoring point designation.

h. All monitoring points shall be maintained such that a sample may be obtained. (1987-057-SP, Condition No. 20, 7/20/87)

19. Prior to installation of each well, a boring shall be advanced at least five (5) feet into the lower confining unit or to bedrock.

    a. If the confining unit (Yorkville Till) is more than five feet thick, the well is to be completed in the drift above the confining unit. If the drift yields insufficient water, a new well location must be selected and approved by the Agency.

    b. If the confining unit is not present or is less than five feet thick, the well is to be completed in the drift. If the drift yields insufficient water, the well shall be screened in the bedrock.

    c. The portion of the boring beneath the well screen and the portion of the abandoned exploratory borings beneath the landfill invert are to be grouted in accordance with Condition No. 20(d). (1987-057-SP, Condition No. 21, 7/20/87)

20. If a significant water-bearing unit is encountered in the upper till (Wadsworth Till), a well is to be screened in this unit and reported in writing to the Agency. (1987-057-SP, Condition No. 22, 7/20/87)

21. If Waste Management of Illinois, Inc. can demonstrate that any of the new wells are located within ten (10) feet of an existing well, the number of quarterly samplings for background water quality parameters can be reduced from four to one. The Agency must be notified within 15 days following installation of the wells if any of the wells are within ten feet of an existing well. (1987-057-SP, Condition No. 23, 7/20/87)

22. Permittee shall notify the Agency of any changes from the information submitted to the Agency in its application for a Development and Operating permit for this site. Permittee shall notify the Agency of any changes in the names or addresses of both beneficial and legal titleholders to the herein-permitted site. Such notification shall be made in writing within fifteen (15) days of such change and shall include the name or names of any parties in interest and the address of their place of abode; or, if a corporation, the name and address of its registered agent. (1987-057-SP, Condition No. 24, 7/20/87)

23. Site surface drainage, during development, during operation and after the site is closed, shall be such that no adverse effects are encountered by adjacent property owners. (1987-057-SP, Condition No. 25, 7/20/87)

24. The best available technology (mufflers, berms and other sound shielding devices) shall be employed to minimize equipment noise impacts on property adjacent to the site during both development and operation. (1987-057-SP, Condition No. 26, 7/20/87)

25. This permit is issued with the expressed understanding that no process discharge to waters of the State will occur from these facilities. If such discharge occurs, additional or alternate facilities shall be provided. The construction of such additional or alternate facilities may not be started until a permit for their construction has been issued by this Agency. (1987-057-SP, Condition No. 27, 7/20/87)

26. This Agency reserves the right to require installation of additional monitoring devices, to alter the selection of parameters to be analyzed and to alter monitoring frequencies as may be necessary to fulfill the intent of the Environmental Protection Act. (1987-057-SP, Condition No. 28, 7/20/87)

27. This permit is subject to review and modification by the Agency as deemed necessary to fulfill the intent and purpose of the Environmental Protection Act and all applicable environmental rules and regulations. (1987-057-SP, Condition No. 29, 7/20/87)

28. The closure and post-closure care plan and cost estimates dated November 13, 1987 which were received by the Agency on November 16, 1987 are approved in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, as amended December 27, 1984. (1987-260-SP, Condition No. 28, 12/22/87)

29. A revised closure/post-closure plan, cost estimates, financial assurance instruments and as-built diagrams shall be submitted annually to account for post-closure maintenance and operation of the portions of the gas collection system which have been installed. (1987-206-SP, Condition No. 31, No. 12/10/87)

30. The operator shall notify the Agency within 30 days after receiving the final volume of waste. (1987-057-SP, Condition No. 33, 7/20/87)

31. The operator shall initiate implementation of the closure plan within 30 days after the site receives its final volume of waste. (1987-057-SP, Condition No. 34, 7/20/87)

32. The operator shall not file any application to modify the closure plan less than 180 days prior to receipt of the final volume of waste. (1987-057-SP, Condition No. 35, 7/20/87)

33. Financial assurance shall be maintained by the operator in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, Subpart F in an amount equal to the current cost estimate for closure and post-closure care. (1987-057-SP, Condition No. 36, 7/20/87)

34. Final cover is to be placed in lifts not to exceed 8 inches (loose). The final cover, exclusive of any topsoil vegetative layer, should be placed at a moisture content 3-5% above optimum (ASTM D698) moisture content and under no circumstances below optimum moisture content. The topsoil layer is not to be compacted. The final cover shall be compacted with a sheepsfoot roller. Unless otherwise approved in writing by the Agency, each soil layer shall be disked sufficiently to break down oversized clods, obtain a uniform moisture content, and ensure uniform density. Roots, cobbles, debris, organic and other deleterious material shall be removed from the clay soil prior to compaction. The final lift of final cover shall attain a minimum of 90% of ASTM D698 (Standard Proctor) density. Compaction testing shall be conducted and reported at a rate of at least one test per acre of final cover. Compaction test results, moisture-density curves (ASTM D698) and related soil data must be submitted to the Agency with the plan sheets and closure affidavits required by 35 Ill. Adm. Code, Section 807.508. WMI's request for deletion of the disking requirement did not provide information on how oversized clods would be broken down or what maximum clod size would be achieved in this compaction process. This information would have to be provided if the Agency were to approve an alternate method. (1987-206-37, Condition No. 37, 12/10/87)

35. If necessary, the soil over the entire planting area shall be amended with lime, fertilizer and/or organic matter. On sideslopes, mulch or some other form of stabilizing material is to be provided to hold seed in place and conserve moisture. (1987-057-SP, Condition No. 39, 7/20/87)

36. During the 5-year post-closure period, corrective action shall be taken if problems, including but not limited to the following, occur:

    ponding
    cracks greater than one inch wide
    gas problems
    odor problems
    dead or stressed vegetation
    vegetation with taproots growing in areas not designed to accommodate such
    vector problems
    leachate popouts or seeps

    Groundwater quality records shall be maintained at the office of the site operator and shall be reviewed quarterly. A groundwater quality report shall be submitted quarterly. If the owner/operator or the Agency determines that adverse trends are developing or if parameters exceed General Use water Quality Standards, further investigation is to be performed. If corrective action becomes necessary, a plan is to be developed by the operator for approval by the Agency.

Inspections of the closed landfill shall be conducted semiannually. Records of field investigations, inspections, sampling and corrective action taken are to be maintained at the site and made available to IEPA personnel. During the post-closure care period, these records are to be maintained at the office of the site operator. (1987-057-SP, Condition No. 40, 7/20/87)

37. The owner and operator shall monitor gas, water and settling at the completed site for a period of five (5) years after the site is closed and shall take whatever remedial action is necessary to abate any gas, water or settling problems which appear during that time. Post-closure groundwater monitoring shall be conducted and reported to the Agency on a quarterly basis for 5 years for the following monitoring wells:

Applicant Designation	Agency Designation
G111R	G121
G112R	G122
G113R	G123
G114R	G124
G116R	G129
G117R	G131
G118R	G126
G119R	G128
G120	G125
G121	G127
G122	G130

(1987-057-SP, Condition No. 41, 7/20/87)

38. The following parameters are to be monitored during this period:

Constituent	STORET Number
Temp. of Water Sample DEG F (field measured, unfiltered)	00011
Specific Conductance (SC) UMHOS (field measured, unfiltered)	00094
pH STD. UNITS (field measured, unfiltered)	00400
Elevation of GW Surface FT. REF MSL	71993
Depth to Water FT. BELOW LS	72019
*Well Depth ELEVATION FT. REF MSL	72020
Depth to Water from Measuring Point FT.	72109
Total Alkalinity as $CaCO_3$ MG/L Lab	00410
Total Organic Carbon (TOC) as C, MG/L	00680
Chloride Cl, Diss MG/L	00941
Sulfate SO_4, Diss MG/L	00946
Residue on Evaporation (ROE) MG/L (180 deg. C)	70300

*Well depth elevation (STORET 72020) is to be measured annually and reported with the October 15 submittal each year.

(1987-057-SP, Condition No. 42, 7/20/87)

40. Post-closure surface water monitoring shall be conducted quarterly for 5 years for the following monitoring points:

S101
S301

Constituent	STORET Number
Temp. of Water Sample DEG F (field measured, unfiltered)	00011
Specific Conductance (SC) UMHOS (field measured, unfiltered)	00094
COD Low Level MG/L	00335
pH STD. UNITS (field measured, unfiltered)	00400
Total Alkalinity as $CaCO_3$ MG/L Lab	00410
Ammonia (NH_3+NH_4) as N, Total MG/L	00610
Total Organic Carbon (TOC) as C, MG/L	00680
Chloride Cl, Total MG/L	00940
Sulfate SO_4, Total MG/L	00945
Zinc Zn, Total MG/L	01092
Residue on Evaporation (ROE) MG/L (180 deg. C)	70300

(1987-057-SP, Condition No. 43, 7/20/87)

40. Operation of the gas control system shall not commence until the operator has obtained construction and operating permits from the Agency's Division of Air Pollution Control. (1987-103-SP, Condition No. 45, 7/23/87)

41. Any modifications made to the system in response to the requirements imposed by the Division of Air Pollution Control shall be submitted to the Division of Land Pollution Control in the form of a supplemental permit application. (1987-103-SP, Condition No. 46, 7/23/87)

42. Construction and operation of this system shall be such that the integrity of the landfill liner and cap will not be impaired. (1987-103-SP, Condition No. 47, 7/23/87)

43. The flares shall be inspected once per week to ensure proper operation of the flare and flow control systems (valves, etc.). (1987-103-SP, Condition No. 50, 7/23/87)

44. The wells, gas probes, condensate drains and condensate knockouts shall be inspected at least monthly for structural integrity and proper operation. (1987-103-SP, Condition No. 49, 7/23/87)

45. All flares are to be equipped with gas shut-off valves. Flares which will not remain lit are to be relit or shut off immediately. (1987-103-SP, Condition No. 50, 7/23/87)

46. Shielding is to be provided on the flares to limit visibility and wind effects. (1987-103-SP, Condition No. 51, 7/23/81)

47. All excavations into the final cover shall be backfilled in a manner which restores its integrity. Corrective action shall be implemented during the active life of the landfill and during the post-closure care period for any subsidence or erosion which occurs as a result of this construction or operation. (1987-103-SP, Condition No. 52, 7/23/87)

48. If it is determined that the condensate knockouts are regulated by the RCRA underground storage tank program (Subtitle I), they shall be managed and closed in accordance with these regulations. (1987-103-SP, Condition No. 53, 7/23/87)

49. The operation of 34.740 acre expantion area for this site which was developed according to (1984-13-SP condition No. 8 2/15/84) is hereby approved. (1987-260-SP dated December 22, 1987).

50. All litter shall be collected from the small vehicle unloading station area at the end of each day of operation and placed in the covered refuse container.

51. All refuse containers must be equipped with watertight covers. This cover shall be in place at all times except during the filling operation.

52. Refuse containers must be hauled away and deposited in the active area of this landfill as soon as they are filled to capacity. Containers shall be hauled away after three days use at the site, if they contain any refuse.

Except as modified in the above documents, the site shall be developed and operated in accordance with the terms and conditions of Permit No. 1974-30-DE, dated May 7, 1984 and Permit No. 1974-30-OP dated October 3, 1974.

All certifications, logs, or reports which are required to be submitted to the Agency by the permittee should be mailed to the following address:

Illinois Environmental Protection Agency
Compliance Assurance Unit
Compliance Monitoring Section
Division of Land Pollution Control -- #24
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:JDS:syg/sp3091g/17-29

cc: Maywood Region
Compliance Monitoring Section
Bob Carson
Steve Dunn -- DuPage Co. Dept. of Public Works
Division File